WHAT IS CLAIMED IS:

1. A joint structure of a superconducting cable, comprising:

an insulating spacer having a central conductor;

a superconducting cable; and

a conductor connecting member having one end and another end, wherein said one end has a sleeve shape and is connected to said central conductor, and said other end has a sleeve shape and is connected to said superconducting cable.

2. The joint structure of a superconducting cable according to claim 1, wherein the central conductor of said insulating spacer and said conductor connecting member are connected by multi-contact connection.

3. The joint structure of a superconducting cable according to claim 1, wherein the central conductor of said insulating spacer and said conductor connecting member are connected by friction welding.

4. The joint structure of a superconducting cable according to claim 1, wherein the central conductor of said insulating spacer is made of a metal having aluminum as its main body, and said conductor connecting member is made of a metal having copper as its main body.

5. A joint structure of a superconducting cable, comprising:

a superconducting cable;

a long conductor; and

a conductor connecting member connecting said superconducting cable and said long conductor; wherein

said superconducting cable includes a former and a superconducting layer provided on an outer periphery of the former, an end of said former and said conductor connecting member are connected by pressure welding, and said superconducting layer and said conductor connecting member are connected by soldering or brazing.

6. The joint structure of a superconducting cable according to claim 5, wherein said long conductor is a central conductor of an insulating spacer.

7. A joint structure of a superconducting cable, comprising:

a superconducting cable;

a long conductor;

a conductor connecting member connecting said superconducting cable and said long conductor; and

an insulating spacer covering said conductor connecting member; wherein

a connecting portion between said conductor connecting member and said superconducting cable is arranged inside a hollow tube that is provided at a core portion of said insulating spacer.

8. The joint structure of a superconducting cable according to claim 7, wherein a connecting portion between said conductor connecting member and said long conductor is arranged inside the hollow tube provided at the core portion of said insulating spacer.

9. An insulating spacer for connecting a superconducting cable, having a central conductor connected to a superconducting cable, wherein

said central conductor has a superconducting layer.

10. An insulating spacer for connecting a superconducting cable, having a

central conductor, wherein

said central conductor is connected to a superconducting cable via a conductor connecting member.